

The listing of claims will replace all prior versions, and listings, of claims in this application:

Listing of Claims:

1 1. (currently amended) An electronic engine control system
2 comprising a controller having an ignition control section to control an ignition of an
3 internal combustion engine and a fuel injection control section to control an injector
4 of a fuel injection unit to supply fuel to said engine, and an electric power source
5 section to supply a driving power from a generator driven by said engine to said fuel
6 injection unit and said controller; said fuel injection control section comprising an
7 injection amount decision section to decide a fuel injection amount, an injection
8 command generation section to generate an injection command and an injector
9 drive part to drive said injector in response to said injection command to inject said
10 fuel from said injector; said injection command generation section being so
11 constructed as to generate a first injection command when an output voltage of
12 said generator reaches a set value after the start operation of the engine begins;
13 and said set value being set at a value capable of opening a valve of said
14 injector positively.

1 2. (currently amended) An electronic engine control system
2 comprising a controller having an ignition control section to control an ignition of an
3 internal combustion engine and a fuel injection control section to control an injector
4 of a fuel injection unit to supply fuel to said engine, and an electric power source
5 section to supply a driving power from a generator driven by said engine to said fuel
6 injection unit and said controller; said fuel injection control section comprising an
7 injection amount decision section to decide a fuel injection amount, an injection
8 command generation section to generate an injection command and an injector
9 drive part to drive said injector in response to said injection command to inject said
10 fuel from said injector; said injection amount decision section comprising a first
11 injection amount decision part to decide a first injection amount on the start of said
12 engine in accordance with a cranking speed of said engine; and said injection
13 command generation section being so constructed as to generate a first injection

14 command when an output voltage of said generator reaches a set value after the
15 start operation of the engine begins; and said set value being set at a value capable
16 of opening a valve of said injector positively.

1 3. (original) An electronic engine control system as set forth in
2 claim 2 and wherein said first injection amount decision part decides said first fuel
3 injection amount by correcting said predetermined first fuel injection amount on the
4 start of said engine in accordance with said cranking speed of said engine.

1 4. (original) An electronic engine control system as set forth in
2 claim 2 and wherein said injection amount decision section further comprises a
3 cranking speed speculation part to speculate said cranking speed from an increase
4 rate of said output voltage of said generator, said first injection amount decision part
5 being so constructed as to decide said first fuel injection amount using said cranking
6 speed speculated by said cranking speed speculation part.

1 5. (original) An electronic engine control system as set forth in
2 claim 2 and wherein said generator has a phase winding to output an AC signal
3 having a phase reversed every rotation of a crankshaft of said engine for a
4 predetermined angle and wherein said injection amount decision section further
5 comprises a cranking speed speculation part to speculate said cranking speed from
6 a rotational speed information of said crankshaft included in an output signal of said
7 engine, said first injection amount decision part being so constructed as to decide
8 said first fuel injection amount using said cranking speed speculated by said
9 cranking speed speculation part.

1 6. (original) An electronic engine control system as set forth in
2 claim 2 and wherein said ignition control section comprises ignition prohibition
3 means to prohibit an ignition of said engine until at least one fuel injection is made
4 on the start of said engine.

1 7. (currently amended) An electronic engine control system
2 comprising a controller having an ignition control section to control an ignition of an
3 internal combustion engine and a fuel injection control section to control an injector
4 of a fuel injection unit to supply fuel to said engine, and an electric power source
5 section to supply a driving power from a generator driven by said engine to said fuel
6 injection unit and said controller; said fuel injection control section comprising an
7 injection amount decision section to decide a fuel injection amount injected from
8 said injector, an injection command generation section to generate an injection
9 command and an injector drive part to drive said injector in response to said
10 injection command to inject said fuel from said injector, said injector amount decision
11 section comprising a first injection amount decision part to decide a first injection
12 amount in the form of a fuel injection time on the start of said engine in accordance
13 with a cranking speed of said engine, and said injection command generation
14 section being so constructed as to generate a first injection command when an
15 output voltage of said generator reaches a set value after a cranking operation of
16 said engine begins; and said set value being set at a value capable of opening a
17 valve of said injector positively.

1 8. (original) An electronic engine control system as set forth in
2 claim 7 and wherein said first injection amount decision part decides said fuel
3 injection time for applying said first fuel injection amount by correcting a
4 predetermined first fuel injection time on the start of said engine in accordance with
5 said cranking speed of said engine.

1 9. (original) An electronic engine control system as set forth in
2 claim 7 and wherein said injection amount decision section further comprises a
3 cranking speed speculation part to speculate said cranking speed from an increase
4 rate of said output voltage of said generator, and said first injection amount decision
5 part being so constructed as to decide said first fuel injection time using said
6 cranking speed speculated by said cranking speed speculation part.

1 10. (original) An electronic engine control system as set forth in
2 claim 7 and wherein said generator has a phase winding to output an AC signal
3 having a phase reversed every rotation of a crankshaft of said engine for a
4 predetermined angle and wherein said injection amount decision section further
5 comprises a cranking speed speculation part to speculate said cranking speed from
6 a rotational speed information of said crankshaft included in an output signal of said
7 engine and said first injection amount decision part being so constructed as to
8 decide said first fuel injection time using said cranking speed speculated by said
9 cranking speed speculation part.

1 11. (original) An electronic engine control system as set forth in
2 claim 7 and wherein said ignition control section comprises ignition prohibition
3 means to prohibit an ignition of said engine until at least one fuel injection is made
4 on the start of said engine.

1 12. (new) An electronic engine control system comprising a controller
2 having an ignition control section to control an ignition of an internal combustion
3 engine and a fuel injection control section to control an injector of a fuel injection
4 unit to supply fuel to said engine, and an electric power source section to supply a
5 driving power from a generator driven by said engine to said fuel injection unit and
6 said controller; said fuel injection control section comprising an injection amount
7 decision section to decide a fuel injection amount, an injection command generation
8 section to generate an injection command and an injector drive part to drive said
9 injector in response to said injection command to inject said fuel from said injector;
10 said injection amount decision section comprising a first injection amount decision
11 part to decide a first injection amount on the start of said engine in accordance with
12 a cranking speed of said engine; and said injection command generation section
13 being so constructed as to generate a first injection command when an output
14 voltage of said generator reaches a set value after the start operation of the
15 engine begins; said ignition control section comprises ignition prohibition means to
16 prohibit an ignition of said engine until at least on fuel injection is made on the start
17 of said engine.

1 13. (new) An electronic engine control system comprising a controller
2 having an ignition control section to control an ignition of an internal combustion
3 engine and a fuel injection control section to control an injector of a fuel injection
4 unit to supply fuel to said engine, and an electric power source section to supply a
5 driving power from a generator driven by said engine to said fuel injection unit and
6 said controller; said fuel injection control section comprising an injection amount
7 decision section to decide a fuel injection amount injected from said injector, an
8 injection command generation section to generate an injection command and an
9 injector drive part to drive said injector in response to said injection command to
10 inject said fuel from said injector, said injector amount decision section comprising a
11 first injection amount decision part to decide a first injection amount in the form of a
12 fuel injection time on the start of said engine in accordance with a cranking speed of
13 said engine, and said injection command generation section being so constructed
14 as to generate a first injection command when an output voltage of said generator
15 reaches a set value after a cranking operation of said engine begins; said ignition
16 control section comprises ignition prohibition means to prohibit an ignition of said
17 engine until at least one fuel injection is made on the start of said engine.